

Figure 21. San Pedro - Willcox Playa - Rio Yaqui Watershed 2004 Monitoring and Assessment Map

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE	OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
STREAM MONITORING	DATA							
Aravaipa Creek Stowe Gulch - Wilderness Area AZ15050203-004B A&Ww, FC, FBC, AgL Unique Water	ADEQ Ambient Monitoring Near springs SPARA012.45 100209	1998 - 1 partial suite	No exceedances					
	ADEQ Ambient Monitoring At east trail head SPARA011.03 100210	1998 - 1 partial suite 2000 - 1 partial suite	No exceedances					
	ADEQ Ambient Monitoring Below Parson's Canyon SPARA010.40 100211	1998 - 1 partial suite 1999 - 1 partial suite 2000 - 1 full + 2 partial suites	No exceedances					
	ADEQ Ambient Monitoring At Hell's Half Acre (West end) SPARA007.92 100716	1999 - 1 full suite 2000 - 4 full suites 2001 - 2 full suites 2002 - 1 full suite	No exceedances					
	Summary Row A&Ww Attaining FC Attaining FBC Attaining AgL Attaining	1998 - 2002 16 samples 13 sampling events	No exceedances					ADEQ collected 16 samples at 4 sites in 1998 - 2002. Assessed as "attaining all uses."
Aravaipa Creek Wilderness Area - San Pedro River AZ15050203-004C A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring At Woods Ranch SPARA006.75 100212	1998 - 1 full suite 2000 - 1 full suite 2002 - 1 turbidity	No exceedances					
A&WW, FC, FBC, AGL	ADEQ Ambient Monitoring 5 miles from terminus SPARA002.96 100213	1998 - 1 partial suite	No exceedances					
	Summary Row A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive	1998 - 2002 4 samples 3 sampling events	No exceedances					ADEQ collected 4 samples at 2 sites in 1998 - 2002. Assessed as "inconclusive" and placed on the Planning List due to missing core parameters: Escherichia co dissolved oxygen, dissolved metals (cadmium, copper, and zinc), and total metals (mercury, copper, and lead).

TAE	BLE 17. SAN PEDR	O - WILLCOX P	LAYA - RIO YA	QUI WATERS	HED 200	4 ASSESSM	ENT MONITO	ORING DATA
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	F STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Bass Canyon Creek tributary at 32E26'06"/110E13'18" - Hot Springs Canyon Creek AZ15050203-899B A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring At stream length 9.2 miles SPBAS001.54 100214	1998 - 1 partial suite	No exceedances					
	ADEQ Ambient Monitoring Above Double R Canyon SPBAS000.75 100215	1999 - 1 full suite 2000 - 3 full suites	No exceedances					
	ADEQ Ambient Monitoring Above Hot Springs Canyon SPBAS000.24 100217	1998 - 1 partial suite	No exceedances					
	Summary Row A&Ww Attaining FC Attaining FBC Attaining AgL Attaining	1998 - 2000 6 samples 4 sampling events	No exceedances					ADEQ collected 6 samples at 3 sites in 1998 - 2000. Assessed as "attaining all uses."
Bass Canyon, <u>unnamed</u> tributary of headwaters - Bass Canyon Creek	ADEQ Ambient Monitoring East of Bass Canyon Creek SPUBS000.20 100224	1998 - 1 suite	No exceedances					
AZ15050203-935 A&Ww, FBC, FC (tributary rule)	Summary Row A&Ww Inconclusive FC Inconclusive FBC Inconclusive	1998 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Brewery Gulch Wildcat Canyon - Mule Gulch AZ15080301-337 A&We, PBC	ADEQ TMDL Program Above mineralized zone RMBRG000.90	2000 - 1 field + metals	Copper (dissolved) µg/l	varies by hardness (A&We acute)	26	1 of 1		
Advic, i bo	ADEQ TMDL Program At Mule Gulch RMBRG000.01	2000 - 4 field + metals	Copper (dissolved) µg/l	varies by hardness (A&We - acute)	60 - 150	4 of 4		
	NWDNG000.01		pH SU	6.5 - 9.0 (A&We, PBC)	6 - 7.5	1 of 4		
	A&We Impaired	2000 5 samples	Copper (dissolved) µg/l	varies by hardness (A&We)	26 - 150	5 of 5 events (occurred in 2000)	Impaired	Samples were collected as part of the Mule Gulch copper TMDL. Copper and pH loadings will be addressed in the Mule
		PBC Inconclusive 4 sampling events pH	pH SU	6.5 - 9.0 (A&We, PBC)	6 - 7.5	1 of 5	Inconclusive	Gulch TMDL.

TAE	BLE 17. SAN PEDR	O - WILLCOX P	LAYA - RIO YA	AQUI WATERS	HED 200	4 ASSESSM	ENT MONITO	ORING DATA
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Buehman Canyon headwaters - end Unique Water AZ15050203-010A A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring 2 miles below Bullock Cyn. SPBHC002.46 100425	1999 - 1 full suite 2000 - 2 full + 1 partial suites	Dissolved oxygen mg/L	> 6.0 (90% saturation) A&Ww	2.4 - 8.3 (31- 89%)	2 of 4		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.
Unique Water	ADEQ Ambient Monitoring 1/4 mile below dry wash SPBHC002.17 101175	2000 - 1 full suite 2001 - 2 full suites 2002 - 1 full suite	No exceedances					
	Summary Row A&Ww Attaining FC Attaining FBC Attaining AgL Attaining	1999 - 2002 8 samples 8 sampling events	No exceedances					ADEQ collected 8 samples at 2 sites in 1999 - 2002. Assessed as "attaining all uses."
C - Canyon headwaters - Mule Gulch AZ15080301-342	ADEQ TMDL Program At Highway 80 RMCCN000.01	2000 - 1 field + metals	Copper (dissolved) µg/l	varies by hardness (A&We)	55	1 of 1		
A&We, PBC (tributary rule)	Summary Row A&We Inconclusive PBC Inconclusive	2000 1 sampling event	Copper (dissolved) μg/l	varies by hardness (A&We)	55	1 of 1 event (in 2000)	Inconclusive	Samples were collected as part of the Mule Gulch copper TMDL. Copper loadings will be addressed in the Mule Gulch TMDL.
Copper Creek headwaters - Prospect Cyn. AZ15050203-022A A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring Above Bluebird Mine SPCOP007.09 100433	1998 - 1 partial suite 1999 - 1 full suite 2000 - 1 full + 2 partial suites	No exceedances					
	ADEQ Ambient Monitoring Below Dark Canyon SPCOP005.80 100944	1999 - 1 full suite 2000 - 3 full suites	Selenium (total) µg/L	2 (A&Ww chronic)	<5 - 7.1	1 of 1		Lab reporting limits for two other samples were too high to use results for assessment.
	Summary Row A&Ww Inconclusive FC Attaining FBC Attaining AgL Attaining	1999 - 2000 9 samples 5 sampling events	Selenium (total) μg/L	2 (A&Ww chronic)	<5 - 7.1	1 of 1 event (insufficient events)	Inconclusive	ADEQ collected 9 samples at 2 sites from 1998 - 2000. Assessed as "attaining some uses" and placed on the Planning List due to selenium exceedance.
Double R Canyon Creek headwaters - Bass Cyn Creek AZ15050203-902	ADEQ Ambient Monitoring SPDOU001.00 100222	1998 - 1 full suite	Dissolved oxygen mg/l	> 6.0 (90% saturation) (A&Ww)	5.7 (61%)	1 of 1		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final
A&Ww, FC, FBC	ADEQ Ambient Monitoring Near Terminus SPDOU000.20 100223	1998 - 1 full suite 2000 - 1 full suite	Dissolved oxygen mg/l	> 6.0 (90% saturation) (A&Ww)	4.7 - 6.2 (59 - 70%)	1 of 2		assessment.
	Summary Row A&Ww Attaining FC Attaining FBC Inconclusive	1998 - 2000 3 sampling events	No exceedances					ADEQ collected 3 samples at 2 sites from 1998 - 2000. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameter: Escherichia coli.

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE (OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Dubacher Canyon headwaters - Mule Gulch AZ15080301-075	ADEQ TMDL Program Below Highway 80 RMDBC000.01	2000 - 1 field + metals	Copper (dissolved) µg/l	Varies by hardness (A&We)	1,400	1 of 1		
A&We, PBC (tributary rule)	RIVIDBC000.01		pH (low) SU	6.5-9.0 (A&We, PBC)	2.9	1 of 1		
	Summary Row A&We Inconclusive		Copper (dissolved) µg/l	Varies by hardness (A&We)	1,400	1 of 1 event (insufficient events)	Inconclusive	Samples were collected as part of the Mule Gulch copper TMDL. Copper and pH loadings will be addressed in the Mule
	PBC Inconclusive		pH (low) SU	6.5-9.0 (A&We, PBC)	2.9	1 of 1	Inconclusive	Gulch TMDL.
Grant Creek headwaters - High Creek AZ15050201-033 A&Wc, FC, FBC, DWS, AgL	ADEQ Ambient Monitoring 1 mile below Post Creek WPGRA006.56 100561	1999 - 1 full suite 2000 - 1 partial suite	No exceedances					
	Summary Row A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgL Inconclusive	1999 - 2000 2 sampling events	No exceedances				Not assessed	Insufficient monitoring data to assess.
Hendricks Gulch headwaters - Mule Gulch	ADEQ TMDL Program At Mule Gulch	2000 - 3 field + metals	Copper (dissolved) µg/l	Varies by hardness (A&We)	15 - 76	1 of 3		
AZ15080301-335 A&We, PBC (tributary rule)	RMHNG000.01		pH (low) SU	6.5 - 9.0 (A&We, PBC)	5.8 - 7.4	1 of 2		
	Summary Row A&We Inconclusive	2000 3 sampling events	Copper (dissolved) µg/l	varies by hardness (A&We)	15 - 76	1 of 3 events (insufficient events)	Inconclusive	Samples were collected as part of the Mule Gulch copper TMDL. Copper and pH loadings will be addressed in the Mule
	PBC Inconclusive		pH (low) SU	6.5 - 9.0 (A&We, PBC)	5.8 - 7.4	1 of 2	Inconclusive	Gulch TMDL.
Hot Springs Canyon Creek headwaters - San Pedro River AZ15050203-013 A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring Below Bass Canyon Creek SPHSC006.22 100219	1998 - 1 partial suite	No exceedances					
E S 1	ADEQ Ambient Monitoring Below Wildcat Canyon SPHSC006.13 100574	1999 - 1 full suite 2000 - 2 full + 2 partial suites	No exceedances					
	ADEQ Ambient Monitoring Southwest of Wildcat Peak SPHSC006.04 100220	1998 - 1 partial suite	No exceedances					

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STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row A&Ww Attaining FC Attaining FBC Attaining AgL Attaining	1998 - 2000 7 samples 6 sampling events	No exceedances					ADEQ collected 7 samples at 3 sites in 1998-2000. Assessed as "attaining all uses."
Leslie Canyon Creek headwaters - Whitewater Draw 15080301-007 A&Ww, FBC, FC, AgL	USGS Ambient Monitoring At Leslie Canyon National Wildlife Refuge RMLES007.02 101500	2002 - 1 partial suite	Dissolved oxygen mg/L	>6.0 (90% saturation) (A&Ww)	4.5 (52%)	1 of 1		
	Summary Row A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive	2002 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Miller Canyon Creek headwaters - San Pedro River AZ15050202-409A A&Wc, FC, FBC, DWS, AgL	ADEQ Biocriteria Program Near headwaters SPMLC008.64 100592	1998 - 1 suite	No exceedances					
	Summary Row A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgL Inconclusive	1998 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Morales Creek headwaters - Mule Gulch AZ15080301-331	ADEQ TMDL Program Near Mule Gulch RMMOR000.40	2000 - 1 field + metals	Copper (dissolved) µg/l	varies by hardness (A&We)	18	1 of 1		
A&We, PBC (tributary rule)	Summary Row A&We Inconclusive PBC Inconclusive	2000 1 sampling event	Copper (dissolved) µg/l	varies by hardness (A&We)	18	1 of 1 event (insufficient events)	Inconclusive	Samples were collected as part of the Mule Gulch copper TMDL. Copper and pH loadings will be addressed in the Mule Gulch TMDL.
Mule Gulch headwaters - above Lavender Pit AZ15080301-090A	ADEQ TMDL Program Below Spring Canyon RMMLG008.16	2002 - 1 field + metals	No exceedances					
A215080301-090A A&Ww, FC, PBC	ADEQ TMDL Program At Castle Rock (MG-2) RMMLG007.88 100506	1998 - 4 pH, copper, zinc	No exceedances					
	ADEQ TMDL Program At Castle Rock RMMLG007.86	2000 - 1 field + 2 metals	No exceedances					

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	Summary Row A&Ww Inconclusive FC Inconclusive PBC Inconclusive	1998 - 2000 8 sampling events	No exceedances					ADEQ collected 8 samples at 3 sites in 1998-2000. Assessed as "inconclusive" and placed the Planning List due to missing core parameters: Escherichia coll dissolved oxygen, turbidity/SSC, and total mercury.
above Lavender Pit - Bisbee At Lavend	ADEQ TMDL Program At Lavender Pit	1999 - 1 field + metals 2000 - 5 field + metals	Copper (dissolved) µg/l	Varies by hardness (A&We)	11 - 160	5 of 10		
AZ15080301-090B A&We, PBC		2002 - 4 field + metals	pH (low) SU	6.5 - 9.0 (A&We, PBC)	5.8 - 8.7	1 of 4		
ADEQ TMDL Program Above mill site RMMLG007.20	1999 - 1 pH + metals	Copper (dissolved) up/l	Varies by hardness (A&We)	4,200	1 of 1			
	RMMLG007.20			1300 (PBC total)	4,200	1 of 1		Dissolved copper data were compared to the total copper standards.
			pH (low) SU	6.5 - 9.0 (A&We, PBC)	3.1	1 of 1		
	ADEQ TMDL Program Below old mill site RMMLG007.19	2000 - 2 pH + metals	Copper (dissolved) up/l	Varies by hardness (A&We)	420 - 40,000	4 of 4		
	(Mule Gulch 150)			1300 (PBC total)	420 - 40,000	3 of 4		Dissolved copper data were compared to the total copper standards.
			pH (low) SU	6.5 - 9.0 (A&We, PBC)	3 - 5.9	1 of 2		
	ADEQ TMDL Program At traffic circle RMMLG007.16	1998 - 3 pH + metals	Copper (dissolved) µg/l	Varies by hardness (A&We)	1762-10,050	3 of 3		
	100507			1300 (PBC total)	2356 - 10050	3 of 3		Dissolved copper data were compared to the total copper standards.
			pH (low) SU	6.5 - 9.0 (A&We, PBC)	3.4 - 5.8	3 of 3		
			Zinc (dissolved) µg/l	Varies by hardness (A&We)	2,040-3,760	2 of 3		
	ADEQ TMDL Program Above C-Canyon RMMLG006.99	1999 - 1 pH + metals	Copper (dissolved) µg/L	Varies by hardness (A&We)	12,000	1 of 1		
	TAVINILOGO.33			1300 (PBC - total)	12,000	1 of 1		Dissolved copper data were compared to the total copper standards.
		<u> </u>	Lead (dissolved) µg/L	15 (PBC- total)	35	1 of 1		Dissolve lead data were compared to the total lead standards.
			pH (low) SU	6.5 - 9.0 (A&We, PBC)	3.2	1 of 1		

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	F STANDARDS B	Y SITE				
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS	
	Summary Row A&We Impaired PBC Impaired	1998 - 2002 17 samples 10 sampling events	Copper (dissolved) µg/L	varies by hardness (A&We)	11 - 40,000	5 of 10 events (in 1998-2002)	Impaired	ADEQ collected 17 samples at 5 sites in 1998-2002. Assessed as "impaired" due to copper and pH exceedances.	
		io camping crons		1300 (PBC - total)	11 - 40,000	8 of 9	Impaired Waters Identification Rule requires at least 20 samples to bas		
			Lead (dissolved) µg/L	15 (PBC- total)	35	1 of 2	Inconclusive	requires at least 20 samples to base a listing decision for pH; however, once listed a parameter cannot be delisted unti a TMDL is complete or data indicate designated uses are being "attained". Zinc is now supporting uses. A TMDL for metals and low pH is currently being prepared for Mule Gulch and contributing tributaries. Also placed on the Planning List due to dissolved lead exceedance.	
			pH (low) SU	6.5 - 9.0 (A&We, PBC, AgL)	3.2	7 of 11	Inconclusive (Impaired*)	A TMDL for metals and low pH is currently being prepared for Mule Gulch and	
			Zinc (dissolved) µg/l	Varies by hardness (A&We)	2,040 - 3,760	2 of 19 events (Did not exceed last 3 years)	Attaining		
Mule Gulch Bisbee WWTP - Highway 80 bridge	ADEQ TMDL Program Below WWTP (Site 4) RMMLG006.38	1998 - 4 pH + metals	Copper (dissolved) µg/L	varies by hardness (A&Wedw chronic)	<15 - 30	2 of 4			
AZ15080301-090C A&Wedw, PBC	100508			varies by hardness (A&Wedw acute)	<15 - 30	1 of 4			
	ADEQ TMDL Program At MG-200 (new site) RMMLG006.24	2000 - 3 field + metals 2002 - 2 field + metals	Copper (dissolved) up/l	Varies by hardness (A&Wedw chronic)	<10 - 9400	5 of 5			
	NiviNLG000.24			Varies by hardness (A&Wedw acute)	<10 - 9400	5 of 5			
				1300 (PBC - total)	55 - 9400	2 of 4		Dissolved copper data were compared to the total copper standard.	
			Cadmium (dissolved) µg/L	varies by hardness (A&Wedw chronic)	<1 - 18	3 of 4			
			Lead (dissolved) µg/L	varies by hardness (A&Wedw chronic)	<5 - 71	1 of 3			
				15 <5 - 71 1 of 3 (PBC - total)		Dissolved lead data were compared to the total lead standard.			
			pH SU	6.5 - 9.0 (A&Wedw, PBC)	3.1 - 8.2	2 of 4			
			Zinc (dissolved) µg/l	varies by hardness (A&Wedw)	110 - 4,300	3 of 5			

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE (OF STANDARDS B	Y SITE											
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS								
	ADEQ TMDL Program At MG-200 (old site)	1999 - 1 field + metals 2000 - 2 field + metals	Cadmium (dissolved)	varies by hardness (A&Wedw chronic)	<1 - 16	3 of 3										
	RMMLG006.09		μg/L	varies by hardness (A&Wedw acute)	<1 - 16	1 of 3										
				Copper (dissolved) μp/l	varies by hardness (A&Wedw chronic)	10 - 7,300	3 of 3									
					varies by hardness (A&Wedw acute)	10 - 7,300	3 of 3									
							1300 (PBC)	<10 - 7300	1 of 3		Dissolved copper data were compared to total copper standard.					
					pH (low) SU	6.5 - 9.0 (A&Wedw, PBC)	4.2 - 8.1	1 of 2								
			Zinc (dissolved) µg/l	Varies by hardness (A&Wedw)	50 - 1,100	2 of 3										
	ADEQ TMDL Program Site MG6 RMMLG006.03	1998 - 3 field + metals	1998 - 3 field + metals	Copper (dissolved) µg/l	Varies by hardness (A&Wedw acute)	43-85	3 of 3									
	100509				varies by hardness (A&Wedw chronic)	43 - 85	3 of 3									
	ADEQ TMDL Program At MG-300 (MG-1)	1998 - 2 field + metals 1999 - 1 field + metals 2000 - 4 field + metals	Copper (dissolved) up/l	varies by hardness (A&Wedw chronic)	44 - 12,000	7 of 8										
	At 1 st Elfrida cutoff RMMLG004.65	2000 - 4 field + metals 2002 - 1 field + metals		varies by hardness ('A&Wedw acute)	44 - 12,000	6 of 8										
				1300 (PBC - total)	44 - 12,000	2 of 8		Dissolved copper data were compared to total copper standards.								
			Cadmium (dissolved)	varies by hardness (A&Wedw chronic)	1.2 - 34	5 of 7										
			μg/L	varies by hardness (A&Wedw acute)	1.2 - 34	3 of 7										
			Lead (dissolved) μg/L	varies by hardness (A&Wedw chronic)	<5 - 59	2 of 4										
				15 (PBC - total)	<5 - 59	2 of 4		Dissolved lead data were compared to the total lead standard.								
						Zinc µg/l			Zinc (dissolved) µg/l			Varies by hardness (A&Wedw)	<50 - 2,200	3 of 9		
			pH (low) SU	6.5-9.0 (A&Wedw, PBC)	3.16 - 8.58	2 of 10										

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE					
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS		
	ADEQ TMDL Program At 2 nd Elfrida cutoff	1998 - 1 field + metals	Copper (dissolved) µg/l	varies by hardness A&Wedw acute	5,500	1 of 1				
	RMMLG003.40			varies by hardness A&Wedw chronic	5,500	1 of 1				
				1300 (PBC - total)	5,500	1 of 1		Dissolved copper data were compared to total copper standards.		
					Cadmium (dissolved) µg/L	varies by hardness (A&Wedw chronic)	10	1 of 1		
			Zinc (dissolved) µg/l	Varies by hardness (A&Wedw)	940	1 of 1				
	Summary Row A&Wedw Impaired	1998-2002 24 samples	Copper (dissolved) up/l	varies by hardness (A&Wedw acute)	<10 - 9400	12 of 12 events (in 1998-2002)	Impaired	ADEQ collected 24 samples at 6 sites in 1998 - 2002. Assessed as "impaired" du to copper, cadmium, and zinc exceedances and low pH. A TMDL for metals and low pH is currently being prepared for Mule Gulch and contributin		
	PBC Impaired	12 sampling events		varies by hardness (A&Wedw chronic)	<10 - 9400	12 of 12 events (100% exceed)	Impaired			
				1300 (PBC - total)	55 - 9400	6 of 21	Impaired	tributaries. Also placed on the Planning List due to		
			Cadmium (dissolved) µg/L	varies by hardness (A&Wedw acute)	<1 - 18	3 of 8 events (in 1998-2000)	Impaired	lead exceedance and missing core parameters: dissolved oxygen, Escherichia coli, and turbidity/SSC.		
			μg/L	varies by hardness (A&Wedw chronic)	<1 - 18	6 of 8 events (> 3 exceed)	Impaired			
			Lead (dissolved) µg/L	varies by hardness (A&Wedw chronic)	<5 - 71	1 of 6 events (17% exceed)	Inconclusive			
				15 (PBC - total)	<5 - 71	1 of 5	Inconclusive			
			pH SU	6.5 - 9.0 (A&Wedw, PBC)	3.1 - 8.2	5 of 23	impaired			
			Zinc (dissolved) μg/l	varies by hardness (A&Wedw acute)	110 - 4,300	5 of 12 events (in 1998 - 2002)	Impaired			
				varies by hardness (A&Wedw chronic)	110 - 4,300	5 of 12 events (42% exceed)	Impaired			
ral & Grassy Hill Tributary dwaters - Mule Gulch 15080301-344	ADEQ TMDL Program At Mule Gulch RMMHC000.01	2000 - 1 field + metals	Copper (dissolved) µg/l	varies by hardness (A&We)	15	1 of 1				
Ve, PBC utary rule)	Summary Row	2000	Copper (dissolved)	varies by hardness (A&We)	15	1 of 1 event (in 2000)	Inconclusive	Samples were collected as part of the Gulch copper TMDL. Copper loadings		
	A&We Inconclusive PBC Inconclusive	1 sampling event		()		(be addressed in the Mule Gulch TMDL		

TAE	BLE 17. SAN PEDR	O - WILLCOX P	LAYA - RIO YA	QUI WATERS	HED 200	4 ASSESSM	ENT MONITO	ORING DATA
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
OK and Youngblood tributaries headwaters - Brewery Gulch AZ15050202999	ADEQ TMDL Program On "B" Hill	2000 - 1 field + metals	Copper (dissolved) µg/L	varies by hardness (A&We)	180	1 of 1		
A&We, PBC (tributary rule)	Summary Row A&We Inconclusive PBC Inconclusive	2000 1 sampling event	Copper (dissolved) µg/L	varies by hardness (A&We)	180	1 of 1 event (in 2000)	Inconclusive	Samples were collected as part of the Mule Gulch copper TMDL. Copper loadings will be addressed in the Mule Gulch TMDL.
Ramsey Canyon Creek headwaters - Forest Rd. 110 AZ15050202-404A A&Wc, FC, FBC, Agl, AgL	ADEQ Ambient Monitoring Above Nature Conservancy SPRMC007.43 100625	1998 - 1 partial suite 2000 - 1 full suite 2001 - 1 full suite	No exceedances					
	ADEQ Ambient Monitoring At Box Canyon SPRMC007.18 101060	2000 - 1 full + 1 partial suites	No exceedances					
	Summary Row A&Wc Inconclusive FC Attaining FBC Attaining AgI Attaining AgL Attaining	1998 - 2001 5 samples 5 sampling events	No exceedances					ADEQ collected 5 samples at 2 sites in 1998 - 2001. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameter: dissolved zinc.
Rucker Canyon Creek headwaters - Whitewater Draw AZ15080301-288 A&Wc, FC, FBC, AgL	ADEQ Ambient Monitoring Above upper-most campsite RMRUC005.63 100938	1999 - 1 full suite 2000 - 3 full suites	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.4 - 7.9 (77 - 95%)	1 of 4		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.
	Summary Row A&Wc Attaining FC Attaining FBC Attaining AgL Attaining	1999 - 2000 4 sampling events	No exceedances					ADEQ collected 4 samples in 1999-2000. Assessed as "attaining all uses."

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE (OF STANDARDS B	Y SITE																	
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS														
San Pedro River Mexico border - Charleston AZ15050202-008 A&Ww, FC, FBC, AgI, AgL	USGS Ambient Monitoring At Palominas (transect site) 100485	2001 - 1 pH, fluoride	No exceedances																			
ADEQ & USGS Fixed Station Near Palominas SPSPR113.55 100275	Fixed Station	1998 - 3 full suites 1999 - 2 full + 1 partial	Arsenic (total) μg/L	50 (FBC)	<10 - 86	1 of 16																
	SPSPR113.55	suites 2000 - 3 full suites + 7 partial suites 2001 - 4 full suites +	Copper (dissolved) µg/L	varies by hardness (A&Ww chronic)	<10 - 23	2 of 16																
		14 partial suites 2002 - 1 full suites + 9 partial suites		varies by hardness (A&Ww acute)	<10 - 23	1 of 16																
			Copper (total) µg/L	500 (AgL)	<10 - 1200	1 of 16																
			Dissolved oxygen mg/l	> 6.0 (90% saturation) (A&Ww)	4.1 - 9.5 (50 - 94%)	2 of 16		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.														
			Escherichia coli CFU	235 (FBC)	0 - 493	1 of 16																
			Lead (total) µg/L																			
															_			100 (AgL)	<5 - 230	1 of 16		
			Selenium (total) µg/L	2 (A&Ww chronic)	<5 - 5	1 of 1		Lab reporting limits for 15 other selenium samples were too high to use results for assessment.														
			Turbidity NTU	50 (A&Ww)	1 - >1000	2 of 16																
	USGS & ADEQ Fixed Station #09471000 At Charleston SPSPR096.49 100291	xed Station suites 99471000 1999 - 8 partial suites t Charleston 2000 - 10 partial PSPR096.49 suites	Dissolved oxygen mg/l	> 6.0 (A&Ww)	5.6 - 9.9	3 of 50		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.														
			Suspended sediment concentration mg/L	80 (geometric mean) (A&Ww)	1 - 1250	see comment below																

TAE	BLE 17. SAN PEDR	O - WILLCOX P	LAYA - RIO YA	QUI WATERS	HED 200	4 ASSESSM	ENT MONIT	ORING DATA	
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE				
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS	
	Summary Row A&Ww Inconclusive	1998 - 2002 95 samples	Arsenic (total) μg/L	50 (FBC)	<10 - 86	1 of 16	Attaining	USGS and ADEQ collected 95 samples at 3 sites in 1998 - 2002. Assessed as "inconclusive" and placed on the Planning	
	FC Attaining FBC Attaining Agl Attaining	51 sampling events	Copper (dissolved) µg/L	varies by hardness (A&Ww chronic)	<10 - 23	2 of 16 events (less than 10%)	Attaining	List due to: 1. Copper exceedances, 2. Selenium exceedances, and	
	AgL Attaining			varies by hardness (A&Ww acute)	<10 - 23	1 of 16 events (in 2001)	Inconclusive	Potential exceedances of the suspended sediment concentration (SSC) geometric mean standard.	
			Copper (total) µg/L	500 (AgL)	<10 - 1200	1 of 16	Attaining		
			Escherichia coli CFU	235 (FBC)	0 - 493	1 of 16 events (in 1999)	Attaining		
			Lead (total) µg/L	15 (FBC)	<5 - 230	1 of 16	Attaining		
				100 (AgL)	<5 - 230	1 of 16	Attaining		
				Selenium (total) μg/L	2 (A&Ww chronic)	<5 - 5	1 of 1 event	Inconclusive	
			Turbidity NTU	50 (A&Ww)	1 - >1000	2 of 16	Attaining		
			Suspended sediment concentration mg/L	80 (geo mean) (A&Ww)	1 - 1250	see comment above right	Inconclusive		
San Pedro River Charleston - Walnut Gulch AZ15050202-006 A&Ww, FC, FBC, AgI, AgL	ADEQ Ambient Monitoring Below Graveyard Gulch SPSPR095.71 100653	1999 - 1 full suite 2000 - 2 full + 1 partial suite	Turbidity NTU	50 (A&Ww)	2 - 258	1 of 4			
	Summary Row A&Ww Inconclusive FC Attaining FBC Attaining AgI Attaining AgL Attaining	2000 4 sampling events	Turbidity NTU	50 (A&Ww)	1 - 258	1 of 4	Inconclusive (see comment)	ADEQ collected 4 samples in 2000. Assessed as "attaining some uses" and placed on the Planning List due to exceedance of the former turbidity standard. Turbidity and suspended sediment concentration (SSC) monitoring will be scheduled during the next monitoring cycle for this watershed.	
San Pedro River Babocomari - Dragoon Wash AZ15050202-003 A&Ww, FC, FBC, AgI, AgL	Hargis & Associates CERCLA Monitoring Above Apache Nitrogen (Apache Site 12) SPSPR079.20	1998 - 2 nitrate 1999 - 3 nitrate	No exceedances					Monitoring is upstream of a Superfund site with nitrate contamination problems.	
		1999 - 1 full suite 2000 - 2 full + 1 partial suites	Escherichia coli CFU/100 ml	235 (FBC)	39 - 660	2 of 4			

TAE	TABLE 17. SAN PEDRO - WILLCOX PLAYA - RIO YAQUI WATERSHED 2004 ASSESSMENT MONITORING DATA														
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE OF STANDARDS BY SITE												
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS							
	Summary Row A&Ww Attaining FC Attaining FBC Impaired AgI Attaining AgL Attaining	1998 - 2001 9 sampling events	Escherichia coli CFU/100 ml	235 (FBC)	39-660	2 of 4 events (in 2000)	Impaired	ADEQ collected 4 samples and Hargis & Associates collected 5 samples at separate sites in 1998 - 2000. Assessed as "impaired" due to <i>Escherichia coli</i> exceedances.							
San Pedro River Dragoon Wash - Tres Alamos AZ15050202-002 A&Ww, FC, FBC, AgI, AgL	Hargis & Associates CERCLA Monitoring At Apache Nitrogen Products (Apache Site 3) SPSPR078.69	1998 - 2 nitrate 1999 - 2 nitrate 2000 - 4 nitrate 2001 - 5 nitrate	Nitrate (as N) mg/L	10 (A&Ww) (site specific standard)	1.6 - 37	4 of 13		Monitoring is downstream of a Superfund site with nitrate contamination problems.							
	Hargis & Associates CERCLA Monitoring At Apache Nitrogen Products (Apache Site 4) SPSPR077.76	2001 - 1 nitrate	Nitrate (as N) mg/L	10 (A&Ww) (site specific standard)	35	1 of 1									
	Hargis & Associates CERCLA Monitoring At Apache Nitrogen Products Survey from Site 12 to Site 13 SPSPR078	2001 - 80 sites (1 sample each site) nitrate samples	Nitrate (as N) mg/L	(A&Ww) (site specific standard)	<1 - 52	28 of 80 sites exceeded									
	Hargis & Associates CERCLA Monitoring (Apache Site 13) SPSPR076.12	1998 - 3 nitrate 1999 - 2 nitrate 2000 - 4 nitrate 2001 - 5 nitrate	Nitrate (as N) mg/L	10 (A&Ww) (site specific standard)	0.74 - 28	4 of 14									
	Summary Row A&Ww Impaired FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive	1998 - 2002 108 samples 15 sampling events	Nitrate (as N) mg/l	10 (A&Ww)	0.43 - 22.6	9 of 28 (excluding survey) 35 of 108 (including survey)	Impaired	Hargis and Associates collected 108 samples at 83 sites in 1998 - 2001 to monitor the effectiveness of cleanup projects at Apache Nitrogen Products. Assessed as "impaired" due to nitrate and placed on the Planning List due to missing all core parameters.							
San Pedro River Hot Springs Cr - Redfield Cyn AZ15050203-011 A&Ww, FC, FBC, Agl, AgL	ADEQ Ambient Monitoring At Cascabel SPSPR046.96 100289	1999 - 1 full suite 2000 - 4 full suites 2001 - 1 full suite 2002 - 2 full suites	Dissolved oxygen mg/L	> 6.0 (90% saturation) (A&Ww)	5.6 - 10.1 (75 - 113%)	1 of 8		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.							
			Escherichia coli CFU/100 ml	235 (FBC)	<1 - 16,000	1 of 7		Flood conditions present.							
			Turbidity NTU	50 (A&Ww)	2 - >1000	1 of 8		Flood conditions present.							

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE OF STANDARDS BY SITE					
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row A&Ww Inconclusive FC Attaining	1999 - 2002 8 samples 8 sampling events	Escherichia coli CFU/100 ml	235 (FBC)	<1 - 16,000	1 of 7 events (in 2000)	Inconclusive	ADEQ collected 8 samples in 1999 - 2002. Assessed as "attaining some uses" and placed on the Planning List due to exceedances of Escherichia coli and the
	FBC Inconclusive Agl Attaining AgL Attaining	o sampling events	Turbidity NTU	50 (A&Ww)	2 - >1000	1 of 8	Inconclusive (see comment)	former turbidity standard. Turbidity and suspended sediment concentration (SSC) monitoring will be scheduled during the next monitoring cycle for this watershed.
San Pedro River Aravaipa Creek - Gila River AZ15050203-001	ADEQ Ambient Monitoring Below Eskiminzin Wash SPSPR003.74	1998 - 1 partial suite 1999 - 1 full suite 2000 - 5 full suites	Arsenic (total) μg/L	50 (FBC)	<10 - 63	1 of 9		
&Ww, FC, FBC, AgL	100726	2001 - 2 full suites 2002 - 1 full suite	Escherichia coli CFU/100 ml	235 (FBC)	2 - 2636	2 of 9		
			Lead (total) μg/L	15 (FBC)	<5 - 140	1 of 9		
			Mercury (total) µg/L	0.01 (A&Ww chronic)	<0.5 - 0.67	1 of 1		Lab reporting limits for 8 other mercury samples were too high to use results for assessment.
			Selenium (total) µg/L	2 (A&Ww chronic)	<5 - 11	2 of 2		Lab reporting limits for 7 other selenium samples were too high to use results for assessment.
			Turbidity NTU	50 (A&Ww)	2 - >1000	1 of 10		
	ADEQ Ambient Monitoring Upstream of Roach Wash SPSPR002.88 101348	2002 - 2 full + 1 turbidity	No exceedances					
	Summary Row A&Ww Inconclusive	1998 - 2002 13 samples	Arsenic (total) μg/L	50 (FBC)	<10 - 63	1 of 11	Attaining	ADEQ collected 13 samples at 2 sites in 1998 - 2000. Assessed as "impaired" du to Escherichia coli exceedances.
	FC Attaining FBC Impaired AgL Attaining	10 sampling events	Escherichia coli CFU/100 ml	235 (FBC)	2 - 2636	2 of 11 events (in 2000 and 2001)	Impaired	Placed on the Planning List due to mercury and selenium exceedances.
			Lead (total) μg/L	15 (FBC)	<5 - 140	1 of 11	Attaining	
			Mercury (dissolved) μg/L	0.01 (A&Ww chronic)	<0.5 - 0.67	1 of 1 event (insufficient events)	Inconclusive	
			Selenium (total) µg/L	(A&Ww chronic)	<5 - 11	2 of 2 events (insufficient events)	Inconclusive	
			Turbidity NTU	50 (A&Ww)	2 - >1000	1 of 13	Attaining	

TA	BLE 17. SAN PEDR	O - WILLCOX P	LAYA - RIO YA	AQUI WATERS	HED 200	4 ASSESSM	ENT MONITO	ORING DATA
STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE OF STANDARDS BY SITE					
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Spring Canyon Creek headwaters - Mule Gulch AZ15080301-333 A&We, PBC (tributary rule)	ADEQ TMDL Program At confluence with Mule Gulch RMSPC000.10	2000 - 1 field + metals	No exceedances					
(uibulary rule)	Summary Row A&We Inconclusive PBC Inconclusive	2000 1 sampling event	No exceedances				Not assessed	Samples were collected as part of the Mule Gulch copper TMDL. Any copper or pH loadings would be addressed in the Mule Gulch TMDL.
Ward Canyon Creek headwaters - Turkey Creek AZ15050201-433 A&Wc, FC, FBC, AgL	ADEQ Biocriteria Program Above Salisbury Canyon WPWRC000.31 100682	1998 - 1 partial suite	No exceedances					Missing core parameters: Escherichia coli, dissolved zinc, total mercury, copper, and lead.
	Summary Row A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive	1998 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Whitewater Draw Gadwell Canyon - reach 15080301-003 AZ15080301-004	ADEQ TMDL Program At Double Adobe RMWHD010.02	2000 - 1 partial suite	No exceedances					Missing core parameter: field pH.
A&We, PBC, AgL	ADEQ TMDL Program At Kings Highway RMWHD006.60 100229	Highway	Lead (total) µg/l	15 (FBC)	116	1 of 1		Missing core parameter: dissolved cadmium
				100 (AgL)	116	1 of 1		
	Summary Row A&We Inconclusive	1998 - 2000	Lead (total) μg/l	15 (FBC)	116	1 of 1	Inconclusive	Insufficient monitoring data to assess.
	PBC Inconclusive AgL Inconclusive	2 sampling events		100 (AgL)	116	1 of 1	Inconclusive	Placed on the Planning List due to lead exceedance.
Whitewater Draw reach 15080301-003 to unnamed tributary at 31E20'36"/109E34'46"	ADEQ TMDL Program At Highway 80 (WD-1) RMWHD001.3 100510	1998 - 1 pH + metals	Lead (total) μg/L	15	68	1 of 1		Missing core parameters: dissolved cadmium
AZ15080301-002A A&We, PBC, AgL	Summary Row A&We Inconclusive PBC Inconclusive AgL Inconclusive	1998 1 sampling event	Lead (total) μg/l	15 (FBC)	68	1 of 1	Inconclusive	Insufficient monitoring data to assess. Placed on the Planning List due to lead exceedance.

STREAM NAME SEGMENT	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE OF STANDARDS BY SITE					
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Whitewater Draw Unnamed tributary at 31E20'36"/109E34'46" to Mexico border	ADEQ TMDL Program Site WD-1A RMWHD0.012 100512	1998 - 4 pH + metals	Lead (total) µg/L	15	84	1 of 4		
AZ15080301-002B A&Ww, FBC, FC AgL	ADEQ TMDL Program At International Border RMWHD0.011 101069	2000 - 1 arsenic, beryllium	No exceedances					
	Summary Row A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Attaining	1998 - 2000 5 samples 5 sampling events	Lead (total) μg/l	15 (FBC)	84	1 of 4	Inconclusive	ADEQ collected 5 samples at 2 sites in 1998-2000. Assessed as "attaining some uses" and placed on the Planning List due to lead exceedance and missing core parameters: Escherichia coli, dissolved oxygen, turbidity/SSC, dissolved cadmium, and total mercury.
Winwood Canyon headwaters-Mule Gulch AZ15080301-340 A&We, PBC	ADEQ TMDL Program At Mural Hill Tributary (Above mining zone) RMWMC000.66	2000 - 1 pH + metals	Copper (dissolved) µg/l	varies by hardness (A&We)	28	1 of 1		
(tributary rule)	ADEQ TMDL Program Above Old Mill Site, (Below mineralized zone) RMWMC000.37	2000 - 1 pH + metals	pH (low) SU	6.5 - 9.0 (A&We, PBC)	6.1	1 of 1		
	Summary Row A&We Inconclusive	2000 2 samples	Copper (dissolved) µg/l	varies by hardness (A&We)	28	1 of 2 events (occurred in 2000)	Inconclusive	e Samples were collected as part of the Mu Gulch copper TMDL. Copper and pH loadings will be addressed in the Mule
	PBC Inconclusive	1 sampling event	pH (low) SU	6.5 - 9.0 (A&We, PBC)	6.1	1 of 2	Gulch TMDL.	Gulch TMDL.
LAKE MONITORING D	DATA							
Riggs Flat Lake AZL15050201-1210 A&Wc, FC, FBC, AgI, AgL	ADEQ Lakes Program WPRIG-A 100074	1998 - 1 partial suite	No exceedances					Missing core parameter: Escherichia coli
	Summary Row A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive	1998 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Snow Flat Lake AZL15050201-1420 A&Wc, FBC, FC, AgI, AgL	ADEQ Lakes Program WPSNO-A 100084	1998 - 1 full suite	No exceedances					Missing core parameter: Escherichia coli

TABLE 17. SAN PEDRO - WILLCOX PLAYA - RIO YAQUI WATERSHED 2004 ASSESSMENT MONITORING DATA								
	AGENCY AND PROGRAM SITE DESCRIPTION	YEAR SAMPLED NUMBER AND	EXCEEDANCE O	OF STANDARDS B	Y SITE			
WATERBODY ID DESIGNATED USES	SITE CODE ADEQ DATABASE ID	TYPE OF SAMPLES	PARAMETER UNITS	STANDARD DESIGNATED USE	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive	1998 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.
Twin Pond AZ15080302-0001 A&Ww, FC, FBC	USGS Ambient Monitoring SPTWP-USGS 101581	2002 - 1 full suite	No exceedances					Missing core parameters: dissolved oxygen, Escherichia coli, and total mercury.
(tributary rule)	Summary Row A&Ww Inconclusive FC Inconclusive FBC Inconclusive	2002 1 sampling event	No exceedances				Not assessed	Insufficient monitoring data to assess.

TABLE 18. SA	TABLE 18. SAN PEDRO-WILLCOX PLAYA-RIO YAQUI WATERSHED – ASSESSMENT, PLANNING LIST, AND 303(d) STATUS							
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION				
SAN PEDRO-WILLCOX PLAY	'A-RIO YAQUI WATERSHED S	TREAM ASSESSMENTS						
Aravaipa Creek Stowe Gulch - Wilderness boundary 16 miles AZ15050203-004B Unique Water (previously listed as Aravaipa Canyon Creek)	A&Ww Attaining FC Attaining FBC Attaining AgL Attaining Category 1 Attaining All Uses							
Aravaipa Creek Wilderness boundary - San Pedro River 13 miles AZ15050203-004C (previously listed as Aravaipa Canyon Creek)	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 Inconclusive	On the Planning List due to missing core parameters: Escherichia coli, dissolved oxygen, dissolved metals (cadmium, copper, and zinc), and total metals (mercury, arsenic, chromium, copper, and lead).						
Bass Canyon Creek tributary at 32E26'06"/110E13'18" - Hot Springs Canyon Creek 12 miles AZ15050203-899B (Reach was split into warmwater and coldwater segments since the last assessment. No current data in 899A.)	A&Ww Attaining FC Attaining FBC Attaining AgL Attaining Category 1 Attaining All Uses							
Bass Canyon, <u>unnamed tributary of</u> headwaters - Bass Canyon Creek 1 mile AZ15050203-935	A&Ww Inconclusive FC Inconclusive FBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).						
Brewery Gulch Wildcat Canyon - Mule Gulch 1 mile AZ15080301-337	A&We Impaired PBC Inconclusive (see note to the right)			Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report. (5 of 5 copper samples and 1 of 5 pH results did not meet standards)				
Buehman Canyon headwaters - end of Unique Waters 10 miles AZ15050203-010A Unique Water	A&Ww Attaining FC Attaining FBC Attaining AgL Attaining Category 1 Attaining All Uses	Remove beryllium from the Planning List, as the standard was revised in 2002. No exceedances based on the new standard.						
C - Canyon headwaters - Mule Gulch 0.5 miles AZ15080301-342	A&We Inconclusive PBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 1 samples exceeded copper standards).				
Copper Creek headwaters - Prospect Canyon 7 miles AZ15050203-022A	A&Ww Inconclusive FC Attaining FBC Attaining AgL Attaining Category 2 Attaining Some Uses	On the Planning List due to <u>chronic selenium</u> exceedance (1 of 1 sampling event).						

TABLE 18. S	SAN PEDRO-WILLCOX PL	AYA-RIO YAQUI WATERSHED – A	SSESSMENT, PLANNING LIST, AN	ND 303(d) STATUS
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Double R Canyon Creek headwaters - Bass Canyon Creek 5 miles AZ15050203-902	A&Ww Attaining FC Attaining FBC Inconclusive Category 2 Attaining Some Uses	On the Planning List due to missing core parameter: Escherichia coli. Remove dissolved oxygen, as site investigation revealed that the low dissolved oxygen was naturally occurring due to ground water upwelling, and not anthropogenic causes.		
Dubacher Canyon headwaters - Mule Gulch 1 miles AZ15080301-075	A&We Inconclusive PBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 1 copper and pH samples did not meet standards).
Grant Creek headwaters - High Creek 13 miles AZ15050201-033	A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgL Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 2 samples).		
Hendricks Gulch headwaters - Mule Gulch 0.5 miles AZ15080301-335	A&We Inconclusive PBC Inconclusive Category 3 Inconclusive			Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 3 copper and 1 of 2 pH samples did not meet standards).
Hot Springs Canyon Creek headwaters - San Pedro River 26 miles AZ15050203-013	A&Ww Attaining FC Attaining FBC Attaining AgL Attaining Category 1 Attaining All Uses			
Leslie Canyon Creek headwaters - Whitewater Draw 25 miles AZ15080301-007	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Miller Canyon Creek headwaters - Broken Arrow Ranch Road 4 miles AZ15050202-409A	A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgL Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Morales Creek headwaters - Mule Gulch 2 miles AZ15080301-331	A&We Inconclusive PBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper loadings will be addressed in the Mule Gulch TMDL report (1 of 1 copper sample exceeded standards).

TABLE 18. SA	TABLE 18. SAN PEDRO-WILLCOX PLAYA-RIO YAQUI WATERSHED – ASSESSMENT, PLANNING LIST, AND 303(d) STATUS						
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION			
Mule Gulch headwaters - above Lavender Pit 4 miles AZ15080301-090A (Reach previously known as 090A was split into 2 segments 090A and 090B. Designated uses were also modified since the last assessment based on the ongoing TMDL investigation.)	A&Ww Inconclusive PBC Inconclusive AgL Inconclusive Category 3 Inconclusive	On the Planning List due to missing core parameters: Escherichia coli, dissolved oxygen, turbidity/SSC, and total mercury. Remove lead from the Planning List (exceedance occurred in the other segment — which is now 090B).	Delist copper, pH, and zinc from the 303(d) List. TMDL investigation has shown that exceedances occur in the lower segment (now -090B).				
Mule Gulch above Lavender Pit - Bisbee WWTP 1 mile AZ15080301-090B (Reach previously known as 090A was split into 2 segments 090A and 090B. Designated uses were also modified since the last assessment based on the ongoing TMDL investigation.)	A&We Impaired PBC Impaired Category 5 – Impaired	On the Planning List due to <u>dissolved lead</u> exceedance (1 of 2 samples).	On the 303(d) List for copper since 1990. (Acute copper exceedances in 5 of 10 sampling events and total copper exceedances in 8 of 9 samples). EPA placed pH on the list based on 7 of 15 exceedances although Arizona's Impaired Waters Identification Rule requires at least 20 samples to base a listing decision for pH. However, once listed, the reach cannot be delisted until a TMDL is complete or pH data indicate designated uses are being attained. In current data, pH exceeded standards in 7 of 11 samples. Delist zinc. No exceedances in the last 3 years of sampling. Ongoing TMDL investigation has determined that sitespecific standards need to be developed.				
Mule Gulch Bisbee WWTP - Highway 80 Bridge 4 miles AZ15080301-090C (Reach previously known as 090B was split into 2 segments now 090C and 090D. Designated uses were also modified since the last assessment based on the ongoing TMDL investigation. No current data for reach 090D.)	A&Wedw Impaired PBC Impaired Category 5 Impaired	On the Planning List due to: 1. Chronic lead exceedance (1 of 6 sampling events) and total lead exceedance. 2. Missing core parameters: Escherichia coli, turbidity/SSC, and dissolved oxygen.	On the 303(d) List (since 1990) for copper, zinc, and low pH. Acute and chronic copper exceedances in 12 of 12 sampling events and total copper exceedances in 6 of 21 samples. Low pH in 5 of 23 samples. Acute and chronic zinc exceedances in 5 of 12 sampling events. Add cadmium to the 303(d) List. Acute cadmium exceedances in 3 of 8 sampling events and chronic cadmium exceedances in 6 of 8 sampling events. Ongoing TMDL investigation has determined that site-specific standards need to be developed.				
Mural and Grassy Hill tributary headwaters - Mule Gulch 2.2 miles AZ15080301-344	A&We Inconclusive PBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 1 copper samples exceeded standards).			
OK and Youngblood headwaters - Brewery Gulch 1 mile AZ15080301-1000	A&We Inconclusive PBC Inconclusive Category 3 — Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 1 copper samples exceeded standards.)			

TABLE 18. SA	AN PEDRO-WILLCOX PL	AYA-RIO YAQUI WATERSHED – A	SSESSMENT, PLANNING LIST, AN	ND 303(d) STATUS
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Ramsey Canyon Creek headwaters - Forest Rd. 110 4 miles AZ15050202-404A (Reach was split into warmwater and coldwater segments since the last assessment. No current data in 404B.)	A&WC Inconclusive FC Attaining FBC Attaining AgI Attaining AgL Attaining Category 2 Attaining Some Uses	On the Planning List due to missing core parameter: dissolved zinc.		
Rucker Canyon Creek headwaters - Whitewater Draw 10 miles AZ15080301-288	A&Wc Attaining FC Attaining FBC Attaining AgL Attaining Category 1 Attaining All Uses			
San Pedro River Mexico border - Charleston 28 miles AZ15050202-008	A&Ww Inconclusive FC Inconclusive FBC Attaining AgI Attaining AgL Attaining Category 2 Attaining Some Uses	On the Planning List due to: 1. Chronic selenium exceedance (1 of 1 sampling event). 2. Acute copper exceedance (1 of 16 sampling events) and chronic copper exceedances (2 of 16 sampling events). 3. Potential exceedances of the suspended sediment concentration geometric mean standard. Turbidity and SSC monitoring will be scheduled during the next monitoring cycle for this watershed. Remove beryllium from the Planning List. Standard		Despite issues applying the suspended sediment concentration standard (see discussion in Chapter III), EPA is developing methods to determine base flow which may result in this reach being added to the 2004 303(d) List by EPA.
San Pedro River Charleston - Walnut Gulch 9 miles AZ15050202-006	A&Ww Inconclusive FC Attaining FBC Attaining AgI Attaining AgL Attaining Category 2 Attaining Some Uses	revised in 2002. No exceedances of the new standard. On the Planning List due to exceedance of the former turbidity standard (1 of 4 samples). Turbidity and suspended sediment concentration (SSC) monitoring will be scheduled during the next monitoring cycle for this watershed.		
San Pedro River Babocomari Creek - Dragoon Wash 17 miles AZ15050202-003	A&Ww Attaining FC Attaining FBC Impaired AgI Attaining AgL Attaining Category 5 Impaired	Remove turbidity from the Planning List. No exceedances in 4 samples.	Add Escherichia coli to the 303(d) List due to exceedances in 2 of 4 sampling events (occurred in 2000).	
San Pedro River Dragoon Wash - Tres Alamos Wash 16 miles AZ15050202-002	A&Ww Impaired FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 5 Impaired	On the Planning List due to missing all core parameters. Added in 2002 due to exceedances of the former fecal coliform and turbidity standards. No current Escherichia coli, turbidity or SSC data. Turbidity and suspended sediment concentration (SSC) monitoring will be scheduled during the next monitoring cycle for this watershed.	On the 303(d) List (since 1990) for <u>nitrate</u> . Currently, 35 of 108 samples exceeded nitrate standards. Nitrate sampling was conducted to determine the effectiveness of Superfund mitigation efforts. Contaminated ground water is seeping into the San Pedro near the Apache Nitrogen Products site.	
San Pedro River Hot Springs Creek - Redfield Canyon 13 miles AZ15050203-011	A&Ww Inconclusive FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 2 Attaining Some Uses	On the Planning List due to: 1. Escherichia coli exceedance (1 of 7 sampling events, occurred in 2000). 2. Former turbidity standard exceedance (1 of 8 samples). Turbidity and suspended sediment concentration (SSC) monitoring will be scheduled during the next monitoring cycle for this watershed.		

TABLE 18. S	TABLE 18. SAN PEDRO-WILLCOX PLAYA-RIO YAQUI WATERSHED – ASSESSMENT, PLANNING LIST, AND 303(d) STATUS							
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION				
San Pedro River Aravaipa Creek - Gila River 15 miles AZ15050203-001	A&Ww Inconclusive FC Attaining FBC Impaired AgL Attaining Category 5 – Impaired	On the Planning List due to: 1. <u>Chronic mercury</u> exceedance (1 of 1 sampling event). 2. <u>Chronic selenium</u> exceedance (2 of 2 sampling events). <u>Remove turbidity</u> from the Planning List. One exceedance in 13 samples indicates support of designated uses.	Add Escherichia coli to the 303(d) List due to exceedances in 2 of 11 sampling events (occurred in 2000 and 2001).					
Spring Canyon Creek headwaters - Mule Gulch 1 mile AZ15080301-333	A&We Inconclusive PBC Inconclusive Category 3 – Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		Samples collected for Mule Gulch TMDL study. Copper or pH loadings will be addressed in the Mule Gulch TMDL report. (No exceedances reported in 1 sample.)				
Ward Canyon Creek headwaters - Turkey Creek 3 miles AZ15050201-433	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 – Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).						
Whitewater Draw Gadwell Canyon - unnamed tributary 15080301-003 22 miles AZ15080301-004 (Designated uses and reach delineations have changed on this stream since the last assessment.)	A&We Inconclusive PBC Inconclusive AgL Inconclusive Category 3 – Inconclusive (not assessed)	On the Planning List due to: 1. Insufficient monitoring data to assess (only 2 samples). 2. Lead exceedance (1 of 1 sample).						
Whitewater Draw unnamed tributary 15080301-003 to unnamed tributary at 31E20'36"/109E34'46" 6 miles AZ15080301-002A (Designated uses and reach delineations have changed on this stream since the last assessment.)	A&We Inconclusive PBC Inconclusive AgL Inconclusive Category 3 – Inconclusive (not assessed)	On the Planning List due to: 1. Insufficient monitoring data to assess (only 1 sample). 2. Added in 2002 due to: lead, zinc, manganese, beryllium, and turbidity exceedances, low dissolved oxygen and missing core parameters. Remove manganese and beryllium from the Planning List due to revised standards adopted in 2002. The old beryllium and manganese data do not exceed the new standards. Remove dissolved oxygen and turbidity from the Planning List as these standards do not apply in an						

TABLE 18. SA	AN PEDRO-WILLCOX PL	AYA-RIO YAQUI WATERSHED – AS	SSESSMENT, PLANNING LIST, AN	ID 303(d) STATUS
SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Whitewater Draw Unnamed tributary at 31E20'36"/109E34'46" to Mexico border 0.4 miles AZ15080301-002B (This reach was split into 2 segments and designated uses have changed on this stream since the last assessment.)	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Attaining Category 2 – Attaining Some Uses	On the Planning List due to: 1. Lead exceedance (1 of 4 samples). 2. Low dissolved oxygen (no current data, added to the Planning List in 2002 after being delisted from 303(d) List). 3. Turbidity exceedances (no current data, added to the Planning List in 2002 after being delisted from the 303(d) List), 4. Missing core parameters: Escherichia coli, dissolved oxygen, turbidity/SSC, dissolved cadmium, and total mercury. Remove zinc, manganese, and beryllium from the Planning List. No exceedances in 5 samples. (New manganese and beryllium standards.)		
Winwood Canyon headwaters - Mule Gulch 2 mile AZ15080301-340	A&We Inconclusive PBC Inconclusive Category 3 Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (2 samples).		Samples collected for Mule Gulch TMDL study. Copper and pH loadings will be addressed in the Mule Gulch TMDL report (1 of 2 copper samples exceeded standards).
SAN PEDRO-WILLCOX PLAY	A-RIO YAQUI WATERSHED L	AKE ASSESSMENTS		
Riggs Flat Lake 9 acres AZL15050201-1210	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 Inconclusive (not assessed) Trophic status Eutrophic	On the Planning List due to: 1. Insufficient monitoring data to assess (only 1 sample). 2. Added in 2002 due to former turbidity standard exceedance (1 of 1 sample) and 3. Missing core parameters. Causes and sources of turbidity will be investigated during the next monitoring cycle for this watershed.		
Snow Flat Lake 1 acre AZL15050201-1420	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 Inconclusive (not assessed) Trophic status Mesotrophic	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Twin Pond 1 acre AZ15080302-0001	A&Ww Inconclusive FC Inconclusive FBC Inconclusive Category 3 – Inconclusive (not assessed) Trophic status not calculated	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		